This research paper examines the effect that Russian interference in the 2016 U.S. Presidential Election had on its outcome. It combines a qualitative historical examination of Russian methods and tactics used to interfere with European and Eurasian nations’ elections with a quantitative analysis of empirical evidence ascertained specific to the 2016 U.S. Presidential Election. In conjunction with the cyber intrusion of government information systems and exfiltration and exploitation of politically sensitive information, Russia employed social media as a weapon to influence the voting preferences of microtargeted Americans in the three critical electoral college states of Wisconsin, Michigan, and Pennsylvania. The evidence compiled for this paper strongly suggests that Russia was successful influencing opinion. At the conclusion, useful insights and recommendations to inform policy makers and the citizenry are provided to assist in the defense of future foreign interference in U.S. elections.
From the Second Great World War, America’s Greatest Generation emerged into the second half of the twentieth century more resilient and confident. With victory achieved, the United States was propelled into a position of world hegemony and great wealth. With this position of leadership, the U.S. would go on to lead the world in the formation of the United Nations, binding all nations in a promise to never again see war between great powers. The U.S. and world have prospered for now generations, avoiding the scourge of great power conflicts. But, beneath this blanket of security, warfare evolved. Regional conflicts pitted modern nations against rag-tag militias and insurgencies. Many times, these modern nations, with large armies and economies to back them, won. But, other times, they did not. These failures provided the wellspring of hope and inspiration to the small bands of warriors that faced against them—sometimes backed by an opposing modern nation.

One of these organizations was known as al Qaeda, emboldened by their 1980s victory against the Russians in Afghanistan. Having studied and prepared for years, al Qaeda employed asymmetric warfare to both blend into other societies and turn their enemy’s strengths into weaknesses. Then, on a quiet September day in 2001, they transformed passenger airliners into missiles. This day saw America enter into its longest period of warfare, which continues to this day, the enduring War on Terrorism.

As the War on Terrorism entered into its thirteenth year, on another quiet day in May 2014, the U.S., again unprepared, was attacked. This time, by a nation-station, Russia. Russia commenced attacks; not at a strategic harbor or in a highly populated city, but in cyberspace. This attack, was precede by two years of reconnaissance, came in the form a cyber intrusion to the servers of the Democratic National Committee (DNC). Through the careful study of the American electorate and elections system, the Russians designed what they believed to be their best course of action. Their design maximized the effects of attacks different types of attacks to further drive pre-existing wedges between voters, and to activate voters whose beliefs were on the far left and right flanks of American political discourse. To do this, they propagated divisive political issues. These actions weren’t designed to draw America into a war with Russia, but to change the course of American politics in ways that would enable Russian success without such a war being unnecessary.

This research seeks to understand the purpose and methods used by the Russians to execute interference in the 2016 U.S. Presidential Election. It asks the specific question, did Russian interference in the 2016 U.S. Presidential Election change its outcome? The hypothesis in this case is that Russian interference in the election influenced a sufficient number of voters in the critical electoral college states of Wisconsin, Pennsylvania, and Michigan to affect the results of the national-level election.

In the course of seeking this understanding, it has been determined that Russian interference operations against the U.S. in the 2016 U.S. Presidential Election were most success through the use of social media to influence voters, specifically Facebook and Twitter. While this influence was not decisive in itself, this shaped American voters and made them susceptible to the decisive blow, the leaking on October 7, 2016 of the damaging “Podesta e-mails,” which exposed over
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50,000 sensitive DNC e-mails, and the shortly following October 28 “October Surprise,” which was the statement by then-Director of the Federal Bureau of Investigation (FBI) James Comey, informing that he would amend his testimony to the U.S. Congress into the FBI investigation of Hillary Clinton’s use of personal servers for government business. This was powerful enough that it influenced the way Independent and black voters voted in the election and enabled the previously lagging Republican candidates to win by a mere 77,744 popular votes in the critical electoral college states and yet an outsized 14.31%, 77 vote victory in the electoral college.

Background: Russian Electoral Interference

It’s important to consider Russia’s motivation to interfere in the 2016 U.S. Presidential Election. But even before that, it must be recognized that Russian interference into electoral politics is not a new trend. Russia maintains twenty ongoing operations in nineteen Eastern and Western European nations, and now the United States (see figure 1).

One of the most well documented operations exists in Ukraine, which in March 2014 lost Crimea to Russian annexation. But, why these places? Russia has experienced periods as an imperial power and, between 1922 and 1991, was the heart of the Union of Soviet Socialist Republics (USSR). Russia has experienced significant expansion and loss, the capture of the much of Eurasia and the stagnation and downfall of the communist experiment. 1989 was a pivotal time for the Russians, as it watched the fall of the Berlin Wall and the symbolic victory of the U.S. and its allies, in what they believed was the last exploit of the Cold War. Although Russia lost much of its modern empire with the fall of the USSR, the nation itself continued to function; turning nominally to democracy during the 1990s.

Figure 1. Twenty nations with known ongoing Russian electoral interference (red)
Information Source: Select Committee on Intelligence of the U.S. Senate, “Russian Intervention in European Elections,” Senate Hearing 115-105, 28 June 2017
Graphic Source: Author generated using mapchart.net

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1 Committee on Foreign Relations, United States Senate, “Putin’s Asymmetric Assault on Democracy in Russia and Europe: Implications for U.S. National Security,” 10 January 2018
while maintaining near nuclear weapons parity with the U.S. What is more, Russia is a prideful nation that has used many nefarious strategies over its history in its attempts to achieve the upper hand, particularly in the struggle for control of the heart of Eurasia, in what is mostly today’s Germany.³

Much of what has kept modern Russia at bay is the involvement of the U.S. in European and Asian affairs. In Europe, this has manifested itself in many ways, including the enduring North American Treaty Organization (NATO). Militarily inferior to NATO, Russia has assumed its own form of asymmetric warfare in which they project not force to maintain the balance of power in Eurasia, but information in what is today “asymmetric information warfare.”

Using asymmetric information warfare against targeted nations, Russia has succeeded in shaping the regional and international narrative to meet its own interests. A recent example is the activation of ethnic Russians and Russian speakers in the Russian “near abroad” (including much of the former USSR) to prefer Russian media outlets and messages, including those of RT (formerly Russia Today) and Sputnik; each of which portray Russia positively.⁴ These actions, alone, contributed significantly to the annexation of Crimea and the ability for Russia to send troops into Western Ukraine, both places where ethnic Russians are plentiful.⁵ Other examples include influence operations in the 2016 United Kingdom “BREXIT” British Exit from the European Union referendum in 2016 and the 2017 French Presidential Election, in which the nationalistic Marine Le Pen surged in favorability amongst French voters before ultimately losing, despite an eleventh hour leakage operation by Russian cyber operatives designed to discredit now-President Emmanuel Macron.⁶ In each case that Russia is involved, one line of effort endures: the stoking of nationalistic and ethnic flames that turn attention inward and away from Russia.

The same is true with Russia’s motive to interfere with the U.S. electoral process. Turning America’s attention inward upon itself, and particularly focusing attention onto the frayed American social fabric, Russia seeks to shift voters’ senses for what is imperative and what is a threat. This creates space for Russia to act with less obstruction in its near abroad. And, this is even more so true when tensions increase between NATO and the U.S. With attention diverted, Russia seeks to regain not only control of its former empire but to regain co-equal status with the U.S. as world hegemon.

The methods Russia sought and used to conduct interference in the 2016 U.S. Presidential Election are diverse. Given that the U.S. is known for having an open society, it is particularly

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⁵ Select Committee on Intelligence of the U.S. Senate, "Russian Intervention in European Elections," Senate Hearing 115-105, 28 June 2017
⁶ Dearden, “Emmanuel Macron Email Leaks 'Linked to Russian-backed Hackers Who Attacked Democratic National Committee: Analysis Says Clues Lead to APT 28, a Group Allegedly Behind U.S. Election Attacks,” 6 May 2017
vulnerable to Russian influence. Within this environment, one of the ways that Russia sought to influence the election was by penetrating into electronic voting machines. The U.S. Senate Intelligence Committee discussed this topic at length during testimony in June 2017, taking testimony from Connie Lawson, the Indiana Secretary of State; Michael Haas, the Administrator for the Wisconsin Elections Commission; and Dr. J. Alex Halderman, University of Michigan Computer Science and Engineering professor. According to this testimony, Russian penetration was discovered well before the election and measures were taken to remove malicious Russian code before it could affect the results. Electronic ballots remain a difficult method for interference due to safeguards in place, including only periodic connection to network systems. Therefore, it is widely believed that this type of interference did not impact the 2016 U.S. Presidential Election results.\(^7\)

Russia sought to send agents to meet with members of the Trump For President campaign team. This, however, remains the subject of the ongoing U.S. Justice Department’s Special Investigation, led by former FBI Director Robert Mueller. As of now, it is not clear that this method resulted in influence that had an effect on the election. In the process of the investigation, though, revelations have been made, including the February 2018 indictment of 13 suspected Russian agents, linked to Russian troll farms that operated during the election campaign to influence the election, and connections between campaign advisors and the founder and operator of WikiLeaks, Julian Assange.\(^8\) Limited addition discussion will be provided on this subject as it relates specifically to Russian interference operations.

Where Russia found much success was in exploiting the media to send its message. Beginning in May 2014, Russia employed teams of cyber operatives on the multitude of social media platforms that are used daily by most Americans. Most of their success was through Facebook, where the ability to microtarget aided greatly in their ability to appeal directly to their targeted audiences. This was largely modelled after their successes in Ukraine, where leaders repeatedly appealed to Facebook for help with controlling “fake news” and divisive content, never receiving any assistance.\(^9\) To put American social media use into perspective, at the time of the U.S. Presidential campaign season for 2016, 76% of American adults maintained a Facebook account. Another popular platform was Twitter. Unlike Facebook, Twitter was—and remains—a more elite platform, one which influencers—including most politicians—prefer to use for sharing their messages. Due to this and the public nature of Twitter, the media also prefer to monitor the Twitter platform and commonly report on “trending hashtags.” In 2016, a Twitter account was maintained by 26% of American adults.\(^10\) Social media was then combined with Russian-controlled media content, including content generated by RT and Sputnik, to become—for the

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\(^7\) Select Committee on Intelligence of the U.S. Senate, "Russian Interference in the 2016 U.S. Elections," S. Hrg. 115-92, 21 June 2017  
\(^8\) Barrett, Horwitz, Helderman, “Russian Troll Farm, 13 Suspects Indicted in 2016 Election Interference,” The Washington Post, 18 February 2018  
\(^9\) Bourge, "Russian Disinformation on Facebook Targeted Ukraine Well Before the 2016 U.S. Election,” The Washington Post, 28 October 2018  
first time—effectively weaponized in an election in the United States. In 2017, Sputnik and RT were both ordered to register as foreign agents by the U.S. Department of Justice. This is largely due to the fact that in 2016, RT and Sputnik stories were often washed through smaller news publications, sometimes resulting in their being picked up by the mainstream media, but invariably entering into the social media, particularly in Facebook news and Twitter feeds, for consumption by American voters.\(^\text{11,12}\)

To better understand how Russia influenced through Facebook, as study of how this social media platform enables its users and ad buyers the ability to microtarget must be made. On Facebook, every user is considered to be a unique individual within its network. During sign-up, users often volunteer numerous pieces of information, including their age, gender, and geographic location. Even if they do not, however, Facebook has methods to determine this and much more. Because most of its users interact with content on the platform regularly, Facebook is able to compile significant information about users through their activities. The most common activity by Facebook users is engaging in “likes,” in which they interact positively with items on the platform such as pictures, news articles, and comments. Users also often update their “status” by describing their condition, many times coupling the status with photographs in which they may tag their friends and location, note their emotional condition, or link to things they are interested in. Facebook also tracks its users as they visit other websites, identifying items they may be interested in purchasing and placing like-items into their news feed. Together, this trove of information provides a very specific picture of each user and enables marketers to input highly specific data to market directly to their target audience. Through an algorithm developed by Facebook, users’ personalities are deciphered using the “Big Five” psychographics metric. This metric measures their openness, conscientiousness, extroversion, agreeableness, and neuroticism. It also assesses intelligence, life satisfaction, political views, religious views, sexuality, and profession. Regardless of whether information was ever volunteered by the user, the algorithm can determine age, gender, relationship status, and race. After a user has “liked” at least 70 items, Facebook knows them better than their roommate; after 150 “likes,” better than a family member; and, after 300 “likes,” it knows a user better than their spouse.\(^\text{13}\)

Russia created 460 fake Facebook accounts that were used to gain the confidence of real American voters. These accounts generated events that influenced their unsuspecting American Facebook Friends to participate in what appeared to be grassroots movements. With microtargeting data in hand, Russian cyber operatives spent over $100,000 in U.S. and Canadian dollars to purchase over 3,000 Facebook advertisements that caused American voters to take participate to a variety of degrees.\(^\text{14}\) Russian cyber operatives staged rallies both in favor and against both Presidential candidates. In one case, a group called “United Muslims of America”

\(^{11}\) Wilson, "Russian News Outlet Sputnik Registers with DOJ as Foreign Agent," TheHill, 17 November 2017
\(^{12}\) Chappel, “TV Company Linked to Russia’s RT America Registers as Foreign Agent in U.S.,” NPR, 14 November 2017
\(^{13}\) Kosinski, Stillwell, Graepel, “Private Traits and Attributes are Predictable from Digital Records of Human Behavior,” Proceedings of the National Academy of Sciences of the United States of America, 9 April 2013
\(^{14}\) Shane and Goel, “Fake Russian Facebook Accounts Bought $100,000 in Political Ads,” The New York Times, 6 September 2017
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created an event called “Support Hillary, Save American Muslims” for which 47 persons marked “going” and another 150 marked “interested.” In another case, a Russia-created event paid an American to dress as the Democratic Presidential nominee and dance on a stage designed to appear as a jail cell. They also created divisive topic-specific groups such as “Being Patriotic” and “Back the Badge.” “Back the Badge” gained over 111,000 Facebook members.15 Given that the Russians were seeking to influence the election, they likely followed the marketing model that stipulated five “impressions” (online exposures) to related advertising material as a requirement for the information to “sink in.” With consideration to that model, the potential exists that the Russians influenced up to 800,000 Facebook users with the $100,000 spent.16

While the microtargeting data used by the Russians is not publicly available, it is apparent from their focus of advertising that their desired effect was to the promotion of general discord, and to turn-off and -away non-politically aligned voters. The U.S. two-party system and historical trends in political advertising inform that one party’s efforts in media campaigning generally get cancelled-out by opposition advertisement. Consequently, there remains one major body of voters to provide sway in elections: Independent voters. In recent years, their numbers have increased due to disaffection with both of the major parties. To put this into perspective using the three critical electoral college states examined in this research, in 2016 in Wisconsin, Independents were 30% of all vote-casters; in Michigan, they were 29%; and in Pennsylvania, they were 20%. Blacks are another specific demographic group that votes very predictably and largely for the Democratic candidates. While the number of blacks voting in elections tends to be proportionately smaller than all others due to small population size, their votes can make the difference in elections. In 2012, Wisconsin blacks comprised 7% of turnout; in Michigan, 16%; and in Pennsylvania, 13%. Therefore, elections are largely decided by two things: How Independents vote and how many blacks turn-out to vote.

With Twitter, Russia even more directly engaged with users in seeking to control the “Twitter trend.” The “Twitter trend” involved topics that “trending,” becoming suddenly very popular on the Twitter platform. As today, these trending topics were principally tracked through individual users’ use of hashtags, which are also clickable in order to enable rapid viewing of what others are saying on the topic. To influence via this method, Russia employed a team of eighty Russian cyber operatives and coupled them with 50,258 “bots” to form a “bot network.”17 In the case of their influence on the 2016 U.S. Presidential Election, the Russians studied the existing narrative within America. This narrative involves the stories and myths that anchor Americans to a common lineage, give reason for a shared consciousness, and generally enable the sense of patriotism and—in some cases—strong religious conviction. As with every nation, America has its “true believers.” True believers are those who are uncompromising in their beliefs and are willing to take actions which those less strongly intentioned would otherwise shy away from. With Twitter, this includes the willingness to post materials from fringe sources and on more

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15 Bloomberg, “Russians Staged Rallies for and Against Trump to Promote Discord, Indictment Says,” Fortune, 17 February 2018
16 Castillo, “$100,000 in Russian-bought Facebook Ads Could Have Reached Millions of Voters,” CNBC, 29 September 2017
17 Twitter Public Policy, “Update on Twitter’s Review of the 2016 U.S. Election,” 19 January 2018
politically sensitive topics. When pushed and questioned on the material, they are more likely to push and question back. The Russian Twitter cyber operations team identified and targeted these types of individuals by commenting on and liking their Tweets, gaining their trust and support. They also encouraged these users to engage with Russian propaganda. This propaganda was created by the operations team and that supported them. It included such things as leaked e-mails and Russian-shaped news articles, washed through American or other nations’ periodicals. With their true believers propagating Russian and Russian-sponsored materials, or at least engaging with them, Russian cyber operatives engaged the bot network to like these materials and cause hashtags to trend.¹⁸

The top hashtags used by the Russian Twitter operatives were #politics, the number one most used with 3,606 uses; #MAGA (“Make America Great Again,” the Republican candidates’ slogan) at number two with 3,079 uses; #Trump (the Republican Presidential nominee’s last name) at number three with 2,425 uses; and #NeverHillary (which includes the Democratic Presidential nominee’s last name) in sixth place with 1,275 uses.¹⁹ Largely due to the high concentration of high-profile users and the public nature of Twitter, the U.S. news media used it as a journalistic content feeder, most often focusing their journalism around its trending topics. This then leads to the augmentation and further laundering of the Russian message into the mainstream media

¹⁸ Prier, “Commanding the Trend: Social Media as Information Warfare,” Strategic Studies Quarterly, Vol. 11, No. 4, Winter 2017
¹⁹ Popken, “Twitter Deleted 200,000 Russian Troll Tweets. Read Them Here: Twitter Doesn’t Make It Easy to Track Russian Propaganda Efforts – This Database Can Help,” NBC News, 14 February 2018
where it is absorbed as authentic news by viewers and readers. When it came from their trusted news source, voters then further shared this information to friends and family. Assuming the information shared is compatible with the “existing narrative,” these news propagators complete the circuit in spreading Russian-sponsored information that is now taken to be trusted factual. (See figure 2.) To differentiate further the Russian use of Twitter, because individual hashtags come and go, the particular hashtag rankings by number of uses aren’t as important as when they are used. For example, on September 28, the hashtag “#IHaveARightToKnow” trended, which corresponded with a surge in voters wanting access to the Democratic Presidential nominee’s e-mails, which, as previously mentioned, had been the subject of an FBI investigation. In fact, often times Russian Twitter operatives didn’t just drive the trend, they hijacked it. By communicating with American Twitter users, they often co-opted hashtags and, by incorporating their bot network, caused sudden “surges” on Twitter. These surges were most notable on September 17 following the bombing in Chelsea, New York; on October 6 for the Republican candidates’ first town hall; and on November 8, election day. (See figure 3.)

All together, Russian Twitter influence was transparent and the experience for American voters was seamless. Those influencers whose Tweets were enhanced by Russian bots felt emboldened by their popularity and this self-assurance transcended into the voters they influenced.

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20 Hsu, “Russian Fake Tweets Visualized,” Towards Data Science, 30 April 2018
21 Popken, “Russian Trolls Went on Attack During Key Election Moments,” NBC News, 20 December 2017
The last type of the known Russian influence operations was cyber intrusion into political information systems. The most well-known breach was into the information servers of the Democratic National Committee (DNC) in May 2014. This cyber intrusion was conducted by two cyber operations teams known as Advanced Persistent Threat (APT) 28 and APT 29, code named Fancy Bear and Cozy Bear, respectively. During the nearly two-year period in which they remained inside of the server, they explored, gathered information, and waited. The information gathered was used to slowly leak information, often mixed with fake news stories to provide an air of believability, and circulated on social media. This often caused the DNC and the Democratic candidates to go onto the defensive, and led to the resignation of the DNC Chairperson, Debbie Wasserman Schultz; the implication of her replacement, Donna Brazile, in having cheated during a CNN debate to favor the Democratic Presidential candidate; and—ultimately—the release of the “Podesta e-mails.” The “Podesta e-mails” were released on October 7 through the WikiLeaks website within hours of an Access Hollywood video recording release, in which the Republican Presidential nominee is seen and heard making derogatory comments about women, for which he ultimately apologized. John Podesta, was the Democratic Presidential nominee’s campaign manager. The “Podesta e-mails” included over 50,000 e-mails, ranging from benign to damaging. They were immediately seized upon by the Republican nominees and campaign team, and used as fodder to power through the election. What is most instructive about the “Podesta e-mails” is not simply that they were released onto WikiLeaks, but that they were curated to tell a story that maximized the damage of the information.

While not readily apparently the work of the Russians, on October 28, then-Director of the FBI James Comey announced what amounted to an “October Surprise.” The “October Surprise” is the oft-dreaded information drop that sometimes occurs immediately preceding a November election and throws favorability away from one set of candidates. In this case, Comey, through a letter to Congress, informed that he sought to amend testimony he had previously offered in the case of Hillary Clinton’s use of private information system servers due to newly found information, discovered during the course of investigating Anthony Weiner. Anthony Weiner also happened to be the then-husband of Huma Abdin, a very close aide to the Democratic Presidential nominee. Within less than an hour, Republican Congressperson and member of the House Oversight Committee, Jason Chaffetz, announced via Twitter “FBI Director just informed me, ‘The FBI has learned of the existence of e-mails that appear to be pertinent to the investigation.’ Case reopened.” In fact, the case was not reopened, and Comey cleared the newly found information on November 6, two days before the election. While this subject remains under investigation by the Special Investigation led by Robert Mueller, it is worth taking into consideration recently revealed information. In a draft statement of offense provided to the United States District Court in the District of Columbia, Jerome Corsi, a conservative author, provided his statement of offense, taken on September 6, 2018. In it, he voluntarily provides an e-mail message from himself to Roger Stone, a close advisor to the Trump For President campaign

23 Jamieson, “Cyberwar: How Russian Hackers and Trolls Helped Elect a President Who We Don’t, Can’t, and Do Know,” Oxford University Press, 24 September 2018
team and the Presidential nominee, which states, “Word is friend in embassy [Julian Assange, founder and operator of WikiLeaks] plans two more dumps. One shortly after I’m back. Second in October. Impact planned to be very damaging... Time to let more than [the Clinton campaign chairman, John Podesta] to be exposed as in bed with enemy, if they are not ready to drop HRC [Hillary Rodham Clinton, the Democratic Presidential nominee]. That appears to be the game hackers are now about. Would not hurt to start suggesting HRC [is] old, memory bad, has stroke—neither he nor she is well. I expect that much of next dump focus, setting stage for [Clinton] Foundation debacle.” The e-mail was sent on August 2, nearly 10 weeks prior to the dump.\(^{25}\)\(^{26}\) What is most telling for the purposes of this research is the specific reference to the “hackers.” The public having been primed through the preceding months, the dump that followed resulted in the loss of favorability to the Democratic nominees in many states, including Wisconsin, Michigan, and Pennsylvania, and the sudden surge in favorability by the Republican nominees.

**Methodology**

In the course of research into this subject, academic investigation began with the December 2016 announcement by then-U.S. President Barack Obama regarding Russian cyber intrusion. In this statement, Obama brought public attention for the first time to Russian interference in the American process of electing their 2016 President.\(^27\) What followed was an intense law enforcement investigation into the facts and circumstances behind this breach of the American electoral process. While this investigation has been conducted with much vigor, most of the information has been released slowly and in parts through the press over the course of the now two years. These reports have focused on the different facets of Russian cyber intrusion, tracked the slow recognition by social media companies in acknowledging the role that they played in helping to engineer the tools used, and discussed the latest revelations of the ongoing Robert Mueller-led Special Investigation. Even as this topic in America is relatively new, Russian election interference operations have been ongoing—and sometimes very publicly—in both Western and Eastern Europe. With this being the case, scholarly articles provided a wealth of information as they examined cases that pre-existed the 2016 interference and described similar tactics and techniques that has Russia used both successfully and unsuccessfully to shape politics in their own interest. Scholarly articles were also useful in providing the deeply detailed information regarding the ways in which Russia was able to influence through social media and reach a highly specific audience. Many timely books also arrived onto shelves during the period of research that provided in-depth discussion into this subject. One of the most specific and timely was “Cyberwar: How Russian Hackers and Trolls Helped Elect a President What We Don't, Can't, and Do Know” by Kathleen Jamieson. This book takes an in-depth examination of the actors and

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\(^{27}\) Office of the Press Secretary, "Statement by the President on Actions in Response to Russian Malicious Cyber Activity and Harassment," The White House, 29 December 2016
organizations involved in the influence operations and used statistical analysis to measure the effect of their operations on the U.S. electorate.

To measure much of the information provided in the aforementioned sources, numerous other source inputs were relied upon to establish the empirical foundation for research development. These included the Federal Elections Commission’s results for the 2016 U.S. Presidential Election, opinion polling leading up to the election that were aggregated between RealClearPolitics and Huffpost Pollster, and exit polling provided by The New York Times and CNN.

Next, further research was done to understand the human face to Russian influence operations and the U.S. response. To this end, Senate testimony was reviewed, including from the Intelligence and Foreign Relations Committees, which discussed the range of influence operations—from voting machine tampering through operations in European Union nations. In conjunction with former President Obama’s 2016 statement, the U.S. Department of Homeland Security/FBI released a joint report that provided significant detail into the techniques Russian cyber operatives used to penetrate information systems, which was also the first snapshot of the U.S. intelligence community’s progress in understanding and seeking recourse.

To put all of this into context, two interviews were conducted that provided expert-perspective insights into all of the information that had been compiled. The first was with Dr. Philip Roeder, University of California San Diego professor of political science and Russia subject matter expert. The next was with Dr. Casey Dominguez, University of San Diego professor of political science and subject matter expert of U.S. elections.

Figure 4. States scaled by Exposure to Russian Influence via Social Media and WikiLeaks/DCLeaks
Information Source: Howard, Kollanyi, Bradshaw, Neudert, “Social Media, News and Political Information during the US Election: Was Polarizing Content Concentrated in Swing States?” Oxford University, 28 September 2017
Graphic Source: Same as above
Another important input for analysis was the study by Howard, Kollanyi, Bradshaw, Neudert titled "Social Media, News, and Political Information during the U.S. Election: Was Polarizing Content Concentrated in Swing States?" published by Oxford University on September 28, 2017. In this study, the authors identify the level of exposure for each of the fifty United States for Russian influence from social media and WikiLeaks/DCLeaks. As the three states under examination in this research relate, Wisconsin is rated 3 out of 10, Michigan 6 out of 10, and Pennsylvania 8 out of 10. (Each of these levels is correlated with a color, from 1/dark green [low] to 10/dark red [high], as depicted in figure 4.)

The independent variable used in this research is the level of Russian influence. The dependent variable is a sufficient number of voters to influence the results of the 2016 U.S. Presidential Election. Based on the hypothesis, corresponding outcomes would see the results of the election increasingly influenced by likewise increasing levels of Russian interference. To detect whether or not these two rates affected the results of the outcomes of the elections in the critical electoral college states under analysis (Wisconsin, Michigan, and Pennsylvania), the Independent and black votes will be aggregated to determine net projected turn-out and voting percentages (derived from the average of the 2004, 2008, and 2012 election turn-out rates) and their differences from actual 2016 voter turnout rates and voting percentages will be determined, referred to as the “total net difference.” If this “total net difference” is larger than the projected popular vote difference, then it will be determined that Russian electoral influence operations were successful. If not, that they were not successful.

Measuring Russian Interference

Before beginning, a national-level review of 2016 U.S. Presidential candidates popular polling and the election result must be considered. (Refer to figure 5.)

Figure 5. 2016 U.S. Presidential National Opinion Polling and Election Result
Graphic Source: Author generated
As we know, Russian influence operations commenced in 2014 and were fully underway between June 1 and the election. Seen in figure 5, are popularities of the Trump/Pence and Clinton/Kane tickets between June 1 and their parties’ nominations on July 18 and July 25-28, respectively. The graph then continues on track with minimal change in favorability through the October 7, when both the Access Hollywood tape and the “Podesta e-mails” were released to the public. What followed through the month of October was a 3% jump in favorability for the Trump/Pence ticket (41.1% to 44.0%). This jump further increased following the October 28 “October Surprise.” As the graph depicts, the e-mails were then cleared on November 6, but this doesn’t stop the continued increase in favorability, which is confirmed by the popular results of the election in which the Trump/Pence ticket receives 46.0% of the overall popular vote. As is obvious from the graph, Trump/Pence lost the popular election by 2.1%, 2.868 million votes. But elections are not won by popular vote, they are won through the Electoral College, which Trump/Pence won handily by 14.31%, 77 votes. (See figure 6.)

<table>
<thead>
<tr>
<th>Popular Vote</th>
<th>Democrat</th>
<th>Republican</th>
<th>Third Party</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Popular Vote</td>
<td>65,853,514</td>
<td>62,984,828</td>
<td>7,803,934</td>
<td>2.868 mil</td>
</tr>
<tr>
<td>Electoral College (of 538)</td>
<td>48.18%</td>
<td>46.09%</td>
<td>5.73%</td>
<td>2.09%</td>
</tr>
<tr>
<td>Percentage of Electoral College</td>
<td>42.19%</td>
<td>56.50%</td>
<td>1.30%</td>
<td>14.31%</td>
</tr>
</tbody>
</table>

Figure 6. The national results: 2016 U.S. Presidential Election
Information Source: Federal Elections Commission, “Federal Elections 2016 - Election Results for the U.S. President, the U.S. Senate and the U.S. House of Representatives,” December 2017

Important to consider, also, are the changes at the national-level to Independent and black voting trends. (See figures 7 and 8, which are based on FEC results from the 2004, 2008, 2012, and 2016 elections.) In figure 7, there is a noticeable break from the average Independent vote for a Third Party candidate preference in the 2004 through 2012 elections, 4%, to the 2016 result, 10%. This reflects a 250% increase from the three-year average. Similarly, the national trend for black voters would have a projected Third Party voting at 1% for 2016. Instead, it was 4%, a 400% increase. These are the indicators that are sought throughout the following analysis. In cases where these indicators are detected, a thumbprint of the Russian flag is placed.
Moving on to the states under examination, a similar method is applied. Firstly, examination of an aggregated graph depicts 2016 U.S. Presidential candidates opinion polling and election results, demonstrating similar trends to those seen in the national-level graph. (See figure 9.) The major difference in these three cases, however, is that unlike the national-level polling and result, where Clinton/Kaine took a slight uptick at the election and Trump/Pence did not surpass them; in these states, the opposite is true.

![Figure 9. U.S. Presidential opinion polling and election results in the major electoral college states that made the difference in the election](image)

The first state to come under examination is Wisconsin. Wisconsin voted Democratic in the previous three U.S. Presidential Elections. In 2016, it cast 2,976,150 votes and was rated 3 out of 10 for exposure to Russian influence. The Republican candidates won this state by a mere 0.77% with 22,748 votes. (See figure 10.) In Wisconsin, Independents were expected to vote 53% Democratic, 44% Republican, and 3% Third Party. Instead, they voted 40%, 50%, and 10%, respectively. This resulted in a 333% increase in expected to actual Third Party voting and a net gain for the Republican candidates of 33,631 votes. (See figures 11 and 12 in Appendix 1.) For black voters, projection foresaw voting being 90% Democratic, 10% Republican, and 0% Third Party. The actual results were 92%, 6%, and 2%. The net result in this case saw Democrats gain 25,296 more votes than expected.\(^{28-29}\) However, to reemphasize, the increase in Third Party voting was well above expectation. (Figures 13 and 14 in Appendix 1.)

<table>
<thead>
<tr>
<th>Popular Vote</th>
<th>Democrat</th>
<th>Republican</th>
<th>Third Party</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,382,536</td>
<td>1,405,284</td>
<td>188,330</td>
<td>22,748</td>
</tr>
<tr>
<td><strong>Percentage of Popular Vote</strong></td>
<td>46.45%</td>
<td>47.22%</td>
<td>6.32%</td>
<td>0.77%</td>
</tr>
<tr>
<td><strong>Electoral College (of 538)</strong></td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td><strong>Percentage of Electoral College</strong></td>
<td>0%</td>
<td>1.86%</td>
<td>0%</td>
<td>1.86%</td>
</tr>
</tbody>
</table>


Figure 10. The Wisconsin results: 2016 U.S. Presidential Election
In measuring for influence, the overall net difference between Independent and black voters resulted in a gain of 0.27%, 8,035 of the popular votes for the Republican candidates. (See figure 15.) This is not sufficient to have influenced the vote, when compared to the popular difference totals (0.77%, 22,748).

Looking next at Michigan, it voted Democratic in the previous three U.S. Presidential Elections. In 2016, it cast 4,799,284 votes and was rated 6 out of 10 for exposure to Russian influence. The Republican candidates won this state by a slight 0.23% with 10,704 votes. (See figure 16.) In Michigan, Independents were expected to vote 50% Democratic, 46% Republican, and 4% Third Party. Instead, they voted 36%, 52%, and 12%, respectively. This resulted in a 300% increase in expected to actual Third Party voting and a net gain for the Republican candidates of 111,343 votes. (See figures 17 and 18 in Appendix 1.) For black voters, projection foresaw voting being 94% Democratic, 6% Republican, and 0% Third Party. The actual results were 92%, 6%, and 2%. The net result was a gain of 27,836 votes for the Democrats.303132

Once more, the increase in Third Party voting is well above expectation. (Figures 19 and 20 in Appendix 1.)

<table>
<thead>
<tr>
<th></th>
<th>Democrat</th>
<th>Republican</th>
<th>Third Party</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular Vote</td>
<td>2,268,839</td>
<td>2,279,543</td>
<td>250,902</td>
<td>10,704</td>
</tr>
<tr>
<td>Percentage of Popular Vote</td>
<td>47.27%</td>
<td>47.50%</td>
<td>5.23%</td>
<td>0.23%</td>
</tr>
<tr>
<td>Electoral College (of 538)</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Percentage of Electoral College</td>
<td>0%</td>
<td>2.98%</td>
<td>0%</td>
<td>2.98%</td>
</tr>
</tbody>
</table>

Figure 16. The Michigan results: 2016 U.S. Presidential Election

In measuring for influence, the overall net difference between Independent and black voters resulted in a gain of 1.74%, 83,507 of the popular votes for the Republican candidates. (See figure 21.) This is sufficient to have influenced the vote, when compared to the popular difference totals (0.23%, 10,704).

Finally, in the case of Pennsylvania, Democratic candidates won in the previous three U.S. Presidential Elections. In 2016, the state cast 6,165,478 votes and was rated 8 out of 10 for exposure to Russian influence. The Republican candidates won this state by another mere 0.72% with 44,292 votes. (See figure 22.) In Pennsylvania, Independents were expected to vote 54% Democratic, 43% Republican, and 3% Third Party. Instead, they voted 41%, 48%, and 11%, respectively. This resulted in a 366% increase in expected to actual Third Party voting and a net gain for the Republican candidates of 38,843 votes. (See figures 23 and 24 in Appendix 1.) For black voters, projection expected voting to be 93% Democratic, 5% Republican, and 2% Third Party. The actual results were 92%, 7%, and

30 2004 CNN Exit Polling Election Center, Michigan
31 2012 CNN Exit Polling Election Center, Michigan
32 2016 CNN Exit Polling Election Center
Robert Knecht

1%. These percentage results are, therefore, not surprising. However, in this particular case the black vote is notably depressed. Projected turnout was 13%, 801,512 voters. Instead, the actual voting rate was 10%, 616,547 voters. As a result of votes expected for Democrats not being cast, Republicans realized a net gain of 297,700 votes. (Figures 25 and 26 in Appendix 1.)

<table>
<thead>
<tr>
<th></th>
<th>Democrat</th>
<th>Republican</th>
<th>Third Party</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular Vote</td>
<td>2,926,441</td>
<td>2,970,733</td>
<td>268,304</td>
<td>44,292</td>
</tr>
<tr>
<td>Percentage of Popular Vote</td>
<td>47.46%</td>
<td>48.18%</td>
<td>4.35%</td>
<td>0.72%</td>
</tr>
<tr>
<td>Electoral College (of 538)</td>
<td>0</td>
<td>20</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Percentage of Electoral College</td>
<td>0%</td>
<td>3.72%</td>
<td>0%</td>
<td>3.72%</td>
</tr>
</tbody>
</table>

In measuring for influence, the overall net difference between Independent and black voters resulted in a gain of 5.46%, 336,543 of the popular votes for the Republican candidates. (See figure 27.) This is more than sufficient to have influenced the vote, when compared to the popular difference totals (0.72%, 44,292).

Looking again back to the national-level results, the Democratic candidates had a total net difference of 2.09%, 2,868,686 of the popular vote. However, the Republican candidates had 14.31% more Electoral College votes, giving them a 77 vote advantage and qualifying them to win the election. (See figure 27.) This Electoral College victory can be attributed directly to the Republican victories in Wisconsin (1.86% of Electoral College percentage), Michigan (2.98%), and Pennsylvania (3.72%), which together provided 8.56% of the total Republican Electoral College percentage and enough to swing the election, with only 77,744 more popular votes as the net difference between these three states, combined.

Consideration must also be given to all of the 27 states that were influenced at level 7 and above in order to see if similar trends exist. To test this, the 2004, 2008, 2012, projected 2016, and actual 2016 results are provided. (See figure 28.) In every influence exposure category (7/light orange through 10/dark red), there was a highly positively correlated average. In 70.3% of the states, the Republican candidates won. In 63% of the cases in which a state was a “swing state,” it voted Republican. Consequently, while the Russians may not have necessarily preferred the Republican candidates per se, the effect on the electorates of Russian-influenced states was to drive Independent votes away from the Democratic candidates and toward a Third Party candidate. This provided the Republican candidates with sufficient votes and wins to take the Electoral College and the election.
While this research illustrates the effect of Russian interference on the 2016 U.S. Presidential Election, it’s important to consider that there are a lot of opinions as to the complete nature of the effect this influence had. Based on the hard data provided by U.S. government agencies, social media companies, and researchers presented throughout this research paper, that Russians interfered is no longer a question; it is a known. It is also known that their interference shaped opinion.

Russian cyber operatives operated in teams, each focusing on different aspects of the American electoral and media environment. Some had more success than the others. In particular, the social media and DNC server cyber intrusion teams saw the most successes and spectacular results. Their operations were conducted in three phases. The first was reconnaissance. During this phase, the teams sought to understand their environments, their audiences, and how their ability to glean and propagate information could best be used to influence the electoral process. Then, beginning in May 2014, shaping operations commenced. Shaping was designed by the cyber operations teams to delicately manipulate their respective environments, establish monitoring and feedback mechanisms, and begin to “off balance” their targets by the degree needed to maximize the impact of a follow-on information jolt. They did this by deliberately microtargeting Facebook users and taking hold of the Twitter trend. Then, the jolt was delivered on October 7 in the form of the “Podesta e-mails” leak. WikiLeaks delivered highly sensitive information that caused an abrupt elevation in favor of the Republican candidates and away from the Democratic candidates in the three critical electoral college states examined. What may have been an unforeseeable break was the then-FBI Director’s “October Surprise.” The impact of this “surprise” had clearly measurable follow-on consequences to the leaks which accelerated directly into the election itself and the results.
From an international relations perspective, realism accounts for the Russian effort to diminish the U.S. as hegemon in a post-Cold War, unipolar world. As this case demonstrates, however, the constructivist ontology explains even more clearly the purpose and effect of Russia’s interference in the 2016 U.S. Presidential Election. Constructivists form understanding through complex and specific mixes of history, ideas, norms, and beliefs. Through our brief overview of Russian history and motive, we recognize that Russia sought and continues to seek to disorganize the United States and turn its attention onto itself. This is all with the desired end state of creating for Russia the opportunity to gain the international moral upper hand that would permit more engagement with Western Europe at America’s expense while also subjecting Eastern Europe continued efforts in reestablishing a form of its former empire. They won’t stop in this effort unless and until they are held accountable. With that, Russia will continue to interfere in electoral processes and institutions whenever and wherever it suits, including in the U.S.. As democracy is a form of government “of the people,” the electorate itself is the lynch pin that holds the American government up and enables it to function smoothly at the domestic level in order to act and influence internationally, as acceptable to the majority of citizens. Without this, and through the division of the American electorate, the U.S. is caused to focus domestically and not on its foreign policy, one of the most critical outcomes desired by the Russians.

The handling of the announcement of Russian interference by former President Barack Obama was a carefully considered decision that was offered in a very delicate but deliberate way. Since that time, politicians and commentators alike have shed both doubt and confidence about Russian interference and its effects, as well as concern and hope for America. It is apparent that the handling of the Special Investigation by Robert Mueller effects different Americans in different ways. Looking back, should the veracity of the 2016 U.S. Presidential Election have come into complete doubt at the time of the election, such as it may have if the Democratic candidates—perhaps being aware through intelligence of Russian interference—failed to concede and demanded an immediate investigation, the situation could have created a true “constitutional crisis.” A crisis of this sort has the likelihood of resulting in a sizeable number of Americans losing faith in the electoral process, their leaders, institutions, and even democracy itself. This would have also likely led to an increase in American nationalism, isolationism, and withdrawal from international partners; even more so than now; again, the ideal Russian situation.

Through the design, procedures, and traditions of American politics, the type of fiasco described above was avoided. Nevertheless, Americans speculate regularly on these topics. To stave away such thoughts, multiple Congressional inquiries have been made and the ongoing Special Investigation remains ongoing. Knowing, as we do, that interference did occur, it is incumbent upon American leaders from the local through national levels to take measures to reduce future

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34 Dr. P. Roeder, Professor of Political Science, University of California San Diego, personal interview, 4 October 2018
Russian interference and design an electoral environment in which interference to undermine democracy is identified, isolated, and eliminated. To do this, the U.S. government must undertake a top-down approach in understanding the problem and developing solutions. To do this, it must begin by taking a serious examination of the subject, integrating all of the organs and decision makers of the federal government into a wholistic investigatory body that rapidly identifies and closes exploitable gaps. For gaps that cannot be rapidly covered, government-wide remedies must be determined and conveyed into national policy, including integration with the National Security and Defense Strategies. Further, these remedies must be shared with all other democracies. In the course of this, NATO, the European Union, and the United Nations should be encouraged to take and promote these remedies to further assist global democracies in augmenting their defenses to outside interference.

Redoubling efforts at the local through federal levels requires leaders that understand both the problems and the solutions. Solutions begin with protective legislation that takes such actions as compelling social media, media, and internet service providers to identify and report foreign electoral interference on their platforms and in their systems. To this must be added improved electoral procedures that further strengthen election laws to deny Americans, wittingly and unwittingly, from cooperating with foreign nationals that attempt to influence U.S. elections. Leaders must not only educate today’s voters but also the next generation of voters. 35 America’s teachers, instructors, and mentors must be given the materials and training they need to help students understand what happened in the 2016 U.S. Presidential Election; and how to recognize and report it in the next. The role of civic organizations in this process is also paramount to ensure that lessons learned are applied such that all persons are prepared to deal with false information and bias during elections. These actions will each reinforce the other to strengthen the resiliency of America’s democracy.

**Conclusion**

Russia’s near term ambition seeks a return to co-hegemony with the United States. However, since the end of the Cold War, the U.S. has not given Russia the time or space it needs to recapture the momentum to do so. Due to their relative military inferiority, through the use of asymmetric information warfare, Russia continues to seek to off-balance the American giant, turn its attention in on itself, and separate it from its international partners. All of this is with the purpose of allowing Russia the opportunity it needs to assert itself in Eastern and Western Europe, thereafter controlling the heart of Eurasia and re-establishing its co-hegemony.

In the course of Russian interference operations against the U.S. in the 2016 U.S. Presidential Election, the Russians found the most success through influencing American voters via social media, specifically Facebook and Twitter. While not decisive in itself, this shaped American voters and made them susceptible to the decisive blow, the leaking of the damaging “Podesta e-mails” and follow-on “October Surprise.” This powerful jolt influenced the way Independent and black voters voted in the election and enabled the Republican candidates to win with only

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35 Dr. C. Dominguez, Professor of Political Science, University of San Diego, personal interview, 19 October 2018
Robert Knecht

77,744 votes in three critical electoral states but a 14.31%, 77 vote victory in the electoral college.

Further research is needed in order to separate the various overlapping efforts that influenced voters in the election from those directed by the Russian. Doing so will help to demonstrate to governmental leaders and citizens that Russia sought and continues to seek to threaten American democracy, itself. Their efforts are designed not to help one party over the other, but to tear at the fibers that hold America and its citizens together. Future research should also seek out and examine the specific microtargeting data used by the Russians to influence voters on Facebook. As investigations move forward, particularly the Special Investigation, it will be informative to have an increasingly improved understanding of the leadership structure, involvement, and decision-making hierarchy within the Russian government that has and continues to authorize and monitor ongoing election interference operations. Knowing and analyzing these topics will enhance analysis of the 2016 U.S. Presidential candidates opinion polling and election results and improve understanding regarding how and why Americans were and remain vulnerable to foreign influence.
Appendix 1: Wisconsin, Michigan, and Pennsylvania Independent and Black Projected and Actual Voting

In Appendix 1, figures substantiating the “Measuring Russian Interference” section are provided.

Figures 11 through 14 are provided for the case of Wisconsin.
Figures 16 through 19 are provided for the case of Michigan.
Appendix 1: Wisconsin, Michigan, and Pennsylvania Independent and Black Projected and Actual Voting

Figures 22 through 25 are provided for the case of Wisconsin.

![Figure 23. Pennsylvania: Independent changes in voting, 2004-2012 and 2016 projected voting](image)

![Figure 24. Pennsylvania: Independent 2016 projected and actual voting](image)

![Figure 25. Pennsylvania: Blacks changes in voting, 2004-2012 and 2016 projected voting](image)

![Figure 26. Pennsylvania: Blacks 2016 projected and actual voting](image)